VOICE OF THE DIABETIC

A SUPPORT AND INFORMATION NETWORK

The Diabetics Division of The National Federation of the Blind

Volume 6, No. 4 **Fall Edition** **Page 1**

Inside this issue

Your piece of the sky

by Dan Mack

Dan Mack doesn't let diabetes interfere with his positive outlook and outdoor adventures in the Northwest.

I am a person who likes to walk, converse, strum the guitar, play the harmonica, get out and dance now and then, read a good book, and just about anything that everyone else likes to do.

My concentration is on living and enjoying life. For me, living and enjoying are simultaneous. Helping and encouraging others as much as I possibly can is important because I feel when you live your life for others, that's when you're really living.

Now, before you just assume that I am going into this blindly, I should tell you that, yes, I am blind. I've been totally blind for about nine years and diabetic for thirty. Nine years back I had kidney failure and was on dialysis until my kidney transplant about five years ago. Last year I had my right leg amputated below the knee. Now, I am going deaf, at least in one ear, due to neuropathy. No one is quite sure what to expect from the other ear just yet. So, you see I do fit in this magazine and can speak with a certain amount of experience.

I am not going to talk about insulin injections, blood sugar monitoring, and all that stuff. That is all part of our lives. We do that all the time. You eat too much, your sugar goes high. You eat too little and your sugar goes low. If you walk down a railroad track and don't move when the train comes, you are going to get run over. If you walk across a bridge and fall off, you will probably drown. What I am trying to say is that you might as well reach for your piece of the sky.

Since a handicap or disability is not an ideal way to categorize problems, I am going to call them quirks. So take your quirks, tuck them under your arm and go for it. All my life I have said that if I am afraid to do something that I really want to do for fear that it will kill me, I may as well be already dead. Admittedly, I may have at times carried this philosophy a bit too far, or at least pushed it to where I was teetering on the ragged edge. Taking solo rafting trips, snow machine trips, snow shoeing or just hiking around Alaska prospecting for gold sometimes for weeks at a time are not things I would recommend that the average diabetic do, but those are all other stories. I can tell them another time if anyone is interested in listening.

For now I am just talking about living. I know that everyone gets feeling down, low, depressed. If you don't, you may well be one stick short of a cord in your wood pile. Still, I don't have to look too far to find people much worse off than me. Next time you are on rock bottom, go talk to a quadriplegic and then come away and tell me how bad you have it. Some of the people who were diagnosed with juvenile onset diabetes in 1962 are not even around today. They can't see nearly as well as I can see with my totally blind eyes, walk

(Continued to page 10)

Voice of the Diabetic is a national publication of the Diabetics Division of the National Federation of the Blind. It is read by those interested in all aspects of blindness and diabetes. We show diabetics that they have options regardless of the ramifications they may have had. We have a positive philosophy and know that positive attitudes are contagious!

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Sensitivity. . . a precious commodity

by Royanne R. Hollins

Royanne R. Hollins (with her guide dog Willow) emphasizes the importance of mutual sensitivity between patients and their health care team.

A medical practitioner who is well educated and skilled at his craft, *and* who remains sensitive to the personal needs of the individual is becoming a rare find these days. As the practice of medicine becomes more limited by our crisis-ridden health insurance industry, physicians are finding it harder to be sensitive. As insurance companies dictate the amount of time the physician can spend with the patient, that precious commodity, time, is being taken away — leaving the physician with little of it for the individual's needs.

Many people are living with chronic illnesses and must be seen by the medical community on a regular basis. When you are exposed to this community, you, as the patient, can become sensitive to the needs of the medical practitioner as well.

Those of us who depend on quality medical care must learn to voice our thankfulness and appreciation for the sensitivity we are shown. Likewise, we should voice our concerns or objections about our ailments or the health care system. We must think beyond the current complaint or problem. If there is a word of encouragement that we can say to those professionals, we should say it. If there is a word of thankfulness, we should say that as well.

How many medical practitioners know how much their sensitivity really means to us? Have we told them?

I, for one, want there to be no doubt in anyone's mind how I feel about the medical care I receive. I have a wonderful, concerned health care team. I count my blessings daily for their efforts in taking care of my diabetes and its complications, as well as my everyday aches and pains.

After a particularly awful week with recurrent migraine headaches, I went to my doctor's office after the pain had finally ceased, and witnessed his sensitivity through his warm touch on my arm expressing concern. When I sit in his office discussing various ways to combat new diabetic complications, hearing his calm voice of understanding is a precious gift. I know from experience that he will not let me leave his office until he has expressed his concern either verbally or by a touch of compassion through a pat on the back or arm.

After an episode of vision loss from diabetic complications I went to another doctor's office for examination. When finished, he reached out to guide me down the hall, gently taking to me the lounge area where my Guide Dog was waiting for my return. His help was a precious gift of sensitivity. When discussing the nature of my visual deterioration, I hear concern in my physician's voice as well as an honest, compassionate confession that he is not a miracle worker and there is nothing he can do in some situations. It is another exhibition of sensitivity to me, as a person — an individual.

I recently visited another doctor whom I see only twice a year and heard the shocked concern in his voice over the dramatic turn of events concerning my vision. This, too, was a gift he gave to me without even realizing it.

Sometimes a show of this sensitivity is awkward for physicians. If they know what a truly precious gift it is, they can perhaps more readily express it.

I am extremely fortunate to have such a caring, knowledgeable health care team. They do not give up, and they do not try to place blame. They give the impression that they truly care. When I find that they have been talking among themselves about my various conditions and predicaments, I am reminded again how much they care.

My thankfulness also extends to the nurses and their support as well. They play a vital role in my health care, and without their support, my outlook would not be as positive as it is today.

When I talk about the nurses who play a vital role in my health care, it reminds me of those who are no longer direct members of that team as it exists today, but still have a place in my care and treatment. We are still in contact, and their support is still there. One of my physicians became a part of a larger HMO organization, and since then, there has not been a stable nursing support system, as before. However, even with this minor instability in the organization, my physician is still able to go beyond just the medical problems, beyond the particular complaint and ailment at the time, to the person and the individual that I am.

The nurses, education and training groups, and networking are also wonderful sources of assistance. They are part of the big picture of support that I can share with others.

Sensitivity is also known as "bedside manner." Unfortunately, there are many practitioners today who do not feel this is a required element in medical care. That is why I feel highly blessed with a team who cares.

I may be guilty of not always taking the time to verbalize my appreciation to my health care team. However, by sharing these thoughts with others I hope the message will be loud and clear how much their sensitivity means to me.

Sensitivity is a trait that I try to cultivate, as well as being a requirement, in my book, for health care professionals. I have been fortunate enough to gather a wonderful health care team that is sensitive, compassionate and understanding. I have seen these traits in others who have touched my life as well. I am thankful for my network support group all over the greater Sacramento area and beyond, my dear family, and my special, special friends. I am very thankful to be a recipient of this precious commodity, especially from my health care team.

THANK YOU ALL!

Insulin effectively delivered through the lungs

(Note: This news release was recently received from John Hopkins Medical Institutions, Baltimore, Maryland.)

Insulin inhaled with a special device is just as effective at restoring proper blood sugar levels as conventional insulin shots, according to a Johns Hopkins study. The study, in six non-insulin dependent diabetics, was presented at the International Diabetes Federation Congress, hosted by the American Diabetes Society, on June 26 in Washington, D.C.

Led by physiologists Beth Laube, Ph.D., and G.K. Adams III, Ph.D., and endocrinologist Angeliki Georgopoulos, M.D., the research offers a promising start to the development of an inhalable alternative to daily insulin shots for diabetics, the investigators say. Past studies of insulin delivered through the lungs failed to bring blood sugar levels into the normal range, says Laube. Other alternatives to injection, such as skin patches and rectal suppositories, have been unsuccessful in lowering blood sugar levels, and nasal sprays have caused irritation to the nose.

"We knew that in order to bring patients' blood sugar into the normal range we needed to perfect the dosage level, and perfect a way of getting the most insulin beyond the mouth, since much of the drug can be lost there," says Laube.

She and her colleagues pioneered an inhaler that includes a small chamber designed to hold the optimal dose of insulin that is aerosolized — or turned into a mist that may be inhaled.

They attached this chamber to a mouth piece and adjust the inhaler so that patients inhale only at a very slow rate.

"We designed the device so that you can't inhale rapidly, which would result in greater losses of insulin in the mouth," she added.

Every patient who was tested had normal blood sugar levels after inhaling insulin. Blood sugar levels decreased gradually over a two- to three-and-a-half hour period. "The beauty of our aerosolized insulin is that the blood sugar drop is gradual, and the response is predictable," says Georgopoulos.

Each study participant took only one dose of insulin, during a period of fasting.

The researchers emphasize their study is just a beginning and many questions remain unanswered, such as the effect of long-term exposure to insulin on the lungs, and whether patients will develop insulin allergies.

"We need more studies to answer some of these and other questions," says Georgopoulos, "such as can it control blood sugar after a meal, or can it be effective in people with different types of diabetes. The results so far are very encouraging."

Laube is assistant professor of environmental health sciences at the Johns Hopkins School of Public Health. Georgopoulos is associate professor of medicine at the Johns Hopkins Medical Institutions. G. Kenneth Adams III, Ph.D., was associate professor of medicine. The study was funded by the Diabetes Research and Education Fund.

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Scleral shells

by John Hadlock, B.C.O.
Eye Concern, Phoenix, Arizona

From the Editor: John Hadlock is a member of the Board of Certified Ocularists. The term ocularist comes from the French word meaning "eye maker." In this article Mr. Hadlock explains the process of making a scleral shell. Eye Concern charges approximately $1400.00 each for a custom made scleral shell. Some insurance companies will not reimburse the cost of scleral shells because they are considered "cosmetic."

Due to diabetes, my eyeballs shrank, which made it impossible for me to open my eyelids. For nearly a decade I have worn scleral shells so that I am able to open my eyes. I find that shells are helpful in social situations because people are more at ease talking with someone whose eyes are open, etc. Because the scleral shells make the eye appearance almost normal, they also benefit job seekers who recognize the importance of "direct eye contact" with prospective employers. Overall, scleral shells contribute to positive attitudes for persons who are blind in one or both eyes. Please feel free to contact me about my experiences with scleral shells.

"The eyes have one language everywhere," and at Eye Concern, we speak the language of excellence. Many people who suffer from diabetes, and whose eyes (one or both) have become blind or unsightly, have found peace of mind at Eye Concern. Because our prostheses are custom made for the individual, we never use "stock eyes." Such artificial eyes, made of glass and hand blown in sixteen different shapes, were widely distributed before the 1940's and are, unfortunately, still used by many "eye-fitters." The Snellen Reform Shapes were most often uncomfortable and unattractive. In the late 1940's, however, the development of plastics revolutionized the field of ocular prosthetics. Using the "modified impression method," we at Eye Concern design and fabricate prostheses that look and fit like natural, living eyes.

Every diabetic has individual needs and preferences. At Eye Concern we make several types of ocular prostheses, all determined by the needs of the individual. For those who have lost an entire eye (globe), we make a prosthesis that fits comfortably to the shape of the socket. For those whose globes are intact, we custom make a scleral shell prosthesis. A scleral shell is a thin ocular prosthesis which fits entirely over the patient's own globe. In additional to presenting the appearance of a natural eye, the scleral shell serves to hold the eyelids open.

Before beginning the process of making a scleral shell, we thoroughly examine the eye to make sure it is free of infection and is ready to be fitted. At Eye Concern, meticulous attention is given to the manner in which each scleral shell fits. First, we take an impression of the eye and surrounding area, using a natural material known as alginate, which is powdered seaweed. In about 45 seconds the alginate stiffens to the consistency of the white of a hard-boiled egg. After removal from over the globe, the impression is invested — that is, a two-piece mold is made with dental stone, a material very much like plaster of paris. After the dental stone has hardened and the impression removed, molten wax is poured into the mold and allowed to cool and harden. Upon removal from the mold, this wax piece constitutes a pattern with which the scleral shell is fitted to the globe. The wax shape can easily be changed to improve the appearance and comfort for the wearer. Often the scleral shell is so thin that the pattern must have a base of plexiglas, with wax then added as needed to achieve a properly fitting lens.

During the fitting of the prosthesis, we attempt to provide the proper direction of gaze, the proper vertical and horizontal iris positions, the desired prominence to the artificial eye, and the proper eyelid opening (palpebral fissure). This part of the fitting procedure is usually accomplished within three to five hours.

The finished wax pattern is then invested, using stone, in a brass or stainless steel flask, thus creating a new mold in which white acrylic is then processed under heat and pressure.

To present an appearance of living tissue, the actual coloring of the eye is done with the greatest of care. For those patients with one sighted eye, the prosthesis will match that companion eye as closely as possible. "Veins" (fine fibers of red cotton thread) are then painstakingly placed on the surface of the prosthesis in such a manner as to duplicate living veining patterns. The entire painting process usually takes three or four hours. In all, the patient is with us for several hours over a period of two days, and returns a third day to pick up the finished prosthesis and to learn the proper method of caring for it.

I have provided scleral shell prostheses for many diabetic patients during the last twelve years. Our patients indicate that the prostheses makes a definite difference in their lives. They feel good about their appearance, and find that they can more easily converse with others, knowing that their eyes appear basically normal.

I hope that you will feel free to call or write us for more information. I am always happy to give further details. Also, my former office manager wears a scleral shell prosthesis, and will be happy to share her experience with you. Her phone number is (505) 672-3842. Eye Concern is located at 1300 North 12th Street, Edwards Medical Plaza, Suite 622, Phoenix, Arizona 85006. The telephone number of Eye Concern is (602) 254-3973.

The following text was prepared by one of our patients, Chris Bower, a diabetic who received a scleral shell prosthesis from me approximately one year ago.

I was shocked! The words I had just heard echoed in my head. My eye surgeon had just told me, "Mr. Bower, I'm sorry, but there is nothing else we can do for your eye. It is gone." After twenty years of diabetes, complete failure of my kidneys, extensive laser treatment on my eyes, I was now being told I had lost my right eye due to a retina detachment.

In the months that followed, I became very self-conscious about the appearance of the eye. In my opinion, it was not a pretty sight, and it was obvious that the eye was "dead." My eye surgeon suggested I look into having a scleral shell made for the eye, and referred me to Mr. Hadlock of Eye Concern.

I decided to go ahead and have the shell made for my eye. I was amazed at the craftsmanship and detail that went into making "the eye."

My new eye feels so comfortable, I wear it all the time, taking it out usually once a year to be cleaned and polished. And the most incredible thing about my "new eye" is that it looks so natural!! In fact, a humorous incident took place which helped to convince me that my "new eye" really did look natural to other people. While shopping at a local department store, a young sales girl commented on the striking color of my eyes. I responded, "Thank you," pointed to my right eye and said, "I just had this one made!" She had a shocked look on her face. We both had a good laugh!

I no longer feel self-conscious about the appearance of my eye, and I feel more comfortable in public.

Life is a feeling and an attitude. You can't have enjoyment without appreciation, and sometimes you have to lose something to appreciate what you still have.

Flu symptoms may signal diabetes

Don't be fooled this winter if your child has symptoms that appear to indicate the flu. It may in fact be diabetes. According to the American Diabetes Association (ADA), Missouri Affiliate, the similarities between diabetes symptoms and flu symptoms can be misleading — and fatal — if not detected and treated properly.

"Across the country, an estimated 4,000 or more children and young adults may develop type I (insulin-dependent) diabetes during the next four months," warned Philip Cryer, M.D., president of the American Diabetes Association, Missouri Affiliate, "and too often, the symptoms are confused with a flu-like illness or gastroenteritis."

Cryer reported that type I diabetes strikes between 10,000 to 13,000 children, ranging in age from 5 to 16, each year in the United States — that's about 1,000 children a month — with most new cases occurring between November and March.

"Some 500,000 American children and young adults are afflicted by this chronic disease for which there is treatment, but no cure," Cryer stated.

According to diabetes experts, unusual thirst, frequent urination, nausea and rapid weight loss are the major symptoms of this form of diabetes. Also, vomiting, abdominal pain and fatigue may indicate a serious problem.

"We urge anyone who has these symptoms to be checked by a physician at once," stressed Cryer. "If this serious form of diabetes is not detected and treated, it can result in death."

Cryer noted that by alerting the public to the warning signs of diabetes and the need for prompt medical treatment when these symptoms occur, the lives of hundreds of children and young adults can be saved.

More than 12 million Americans have diabetes, a disease in which the body does not produce or respond to insulin, a hormone needed for daily life. The resulting high blood sugar can severely damage the heart, blood vessels, kidneys, eyes and nerves. If left untreated, diabetes can lead to death.

The Missouri Affiliate serves the nearly 300,000 people with diabetes in Missouri, as well as their families and the health-care professionals who treat diabetes.

The American Diabetes Association — celebrating its 50th anniversary in 1990 — is the nation's leading voluntary health organization supporting diabetes research and education. It was founded in 1940 as a professional society.

(*Note:* This article appeared September 12, 1990, in the *Constitution-Tribune,* Chillicothe, Mo.)

If the door closes, there's always the window

by Martha Young

From the Editor: Martha Young is a vivacious lady who radiates congeniality. She has a magnetic personality and all who know her love her. She serves as President of the North Central Chapter of the NFB of Missouri, and is also activities coordinator for her chapter's Committee on Diabetes Affairs.

My story is much like others you have read, I'm sure. The difference is that this happened to me. In 1971 I lost over 100 lbs. on the Weight Watchers program. While still up there on "cloud nine," I took the training and became a lecturer. I worked for Weight Watchers for about 11 years, loving every minute of it! I soon had five classes.

Out of the blue, I began having "night blindness" and other strange problems. Driving became a nightmare! Lights had rainbow colors around them, round street lights looked elongated with streaking tails. Driving on the interstate became a "psychedelic" display: headlights from oncoming traffic arced across the median to my side of the highway, making it almost impossible for me to drive. I faced the fact that I could no longer drive safely.

When my eye doctor diagnosed "macular degeneration (hereditary), cataracts/glaucoma suspect," I thought the end of the world had come. I grieved and felt as if I'd lost a loved one. I had a real "pity party."

But luck was with me at the time. General Motors gave my husband credit for the years he worked at North American building B-25 bombers, and also for the years he spent in the Navy during World War II. I had a driver now who also helped "set up" the classes.

I had cataract surgery (both eyes) and inocular implants. I also received laser treatment on my right eye before the cataract surgery. I felt as if I spent most of my time with my eye doctor. My eye doctor became someone I saw more often than my own adult children and their families.

Then, the bottom fell out of my basket. I found myself in a hospital fighting for my life. I had "congestive heart failure." Large doses of cortisone via I.V.'s were administered (I still must take Prednisone on a daily basis). X-rays and ultra-sound proved that the large valve in my heart was not opening and closing properly. An allergy immunologist had been treating me for bronchial asthma for almost four years, when my real problem was my heart! I did have a touch of asthma caused by the heart problem, not the other way around.

A valve replacement was ruled out due to the degeneration of the bottom of my heart. Once the cells degenerate they do not regenerate. At the same time my blood glucose was out of control. I was put on a 70% NPH/30% R humilin insulin mixture. The topper was that I was put on drug therapy — 23 pills per day. It was depressing, to say the least, but I must add that I am still here able to complain, so I figure I am a lucky person.

I chose not to have a heart transplant because Congress repealed the catastrophic insurance bill. The rejection medication is so expensive that people like me who live on a fixed income cannot afford such astronomical medical expenses.

I am taking the advice of one of the cardiologists who agreed with me when I refused the transplant. He told me to go home and take my insulin and my pills, rest frequently, and take the exercise that my body would allow. I follow his advice.

The prayers said on my behalf have helped me in many ways. My attitude has changed and I intend to live while I am here.

I attended the National Federation of the Blind convention in New Orleans, Louisiana alone. I enjoyed every minute, and intend to be at the 1992 convention in Charlotte, North Carolina.

I have enjoyed the fellowship of our monthly NFB meetings. I am enthused by the tremendous speech our National president Marc Maurer shared with us.

I came face to face with reality. We make our own choices. Our lives are the results of our choices. I choose to live the best life I can in spite of my limitations. I intend to do the best I can to become a knowledgeable Federationist who will be of some help to someone who may need my support.

Diabetic retinopathy is not a pleasant thing to deal with, but at the rate medical science is progressing, I am hopeful. I just refuse to let these "sight stealers" invade my mind and destroy the hope that I have. Anyone can give in to despair, but anyone can also be strong enough so that when they reach the end of their rope, they can tie a knot and hang on.

Life goes on, and when God closes a door, He always leaves a window open. Hang in there fellow Federationists. There is always someone, somewhere in worse circumstances than we are, yet they are "keeping on keeping on."

New book: *Walking Alone and Marching Together*

Walking Alone and Marching Together: A History of the Organized Blind Movement in the United States, 1940-1990, by Floyd Matson.

A STORY NEVER TOLD

This book tells a story — as true as it is dramatic — that has never been told before. It is a story of the epochal struggle and ultimate triumph of a singular American social movement, that of the organized blind, which evolved over the space of half a century from a small vanguard of visionary men and women into a nationwide community of fifty thousand members — recognized throughout the world as a major force in the field of blindness and civil rights.

Unlike previous histories of blindness and the blind, which have dealt almost entirely with the work of benefactors and agencies for the blind, this magisterial study by a distinguished cultural historian — Floyd Matson — breaks new ground in focusing upon the actions and aspirations of the organized blind themselves. It follows the progress of the movement from its historical origins in the remote past to the pioneering adventure of its founding in 1940, then through the early years of lonely struggle for the right of the blind to organize (indelibly associated with the name of John F. Kennedy). Then we see the turmoil of "civil war," followed by renewed harmony, and explosive growth in both size and stature — as symbolized by the establishment of the multi-faceted National Center for the Blind.

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Homer Page, Ph.D.
Professor of Education
Graduate School of Education,
University of Colorado at Boulder

Floyd Matson has lectured and written widely in the fields of minority rights, social thought, and political action. He is the author or editor of eleven books and is the co-author with Jacobus tenBroek of *Hope Deferred: Public Welfare and the Blind* (1959). He also collaborated with tenBroek on the award-winning *Prejudice, War and the Constitution* (1954), detailing the constitutional implications of the evacuation of Japanese Americans from the West Coast during World War II. Professor Matson teaches American Studies at the University of Hawaii.

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Diabetes and blindness

by Bernard Allen Selby Jr.

*(Note: This article appeared in the **Viewfinder,** the publication of the NFB of Rhode Island.)*

Although we frequently take it for granted, the human visual system is one of the most complex and highly developed parts of the body. Like any complex system, the visual system is easy prey to a large number of malfunctions. To be sure, it is one of the body's most fail-safe systems (the individual parts of the system will take on the duties of other malfunctioning parts in an emergency in order to maintain some semblance of what we refer to as sight). One of the main causes of a diminution of sight by malfunctioning is through the secondary effects of a systemic disease. One of the most common systemic (whole body) diseases is known as Diabetes Mellitus, or, in common parlance, sugar diabetes.

Diabetes is the second largest cause of blindness in adults. It can affect vision in a number of ways. Some of these ways are just simply annoying, while others can lead to irreversible blindness. Common secondary effects of diabetes related to vision are blurred vision, diplopia (double vision), cataracts, such retinal changes as maculopathy, and the most common dysfunction associated with diabetes, retinopathy.

There are two types of retinopathy. One is called non-proliferative diabetic retinopathy, the name given to a condition in which mild to severe refractive changes occur in and around the retina. It can reduce visual acuity to a point where one is left with distorted moving shadows. While this loss of vision is often significant, it does not cause total blindness. The leading cause of new blindness in adults is from a condition called proliferative retinopathy. It is the condition which will be described from here on in.

The retina is a thin, light sensitive film of cells (conical in shape) that lines the back of the eyeball. Nearly in the center of this back wall is an area of great sensitivity called the macula. The whole area surrounding the retina and macula is rich in blood vessels.

The longer that one has survived diabetes, the more likely it is that some of these vessels may leak or bleed. Part of the reason for this bleeding is because many of these blood vessels are newly-formed ones that are made by the body to compensate for a clogged blood vessel. These so-called secondary vessels are very thin walled and are easily damaged. The reason the original blood vessels got plugged up is because many of the red blood cells that circulate through them are somewhat sticky because of glycosylated membranes (glucose combined with some of the proteins that make up the red blood cells' outer coat). The new blood vessels tend to grow in great numbers and inward toward the retina. They can get so thick that they completely block the light from hitting the retina. Furthermore, normal changes in blood sugar levels most noticeable in diabetes cause water to increase or decrease the size of the eyeball. This also affects the permeation of blood into the eye and the production of further weak blood vessels. The whole process may even tear the retina right off the back of the eyeball. When things have gotten this far, even radical vitrectomy (opening the eyeball and replacing all of the fluid with saline and hopefully removing some blood with it) cannot save the sight. Two processes (both of which are fail-safe) are working together to insure that the damage is permanent.

The best treatment for proliferative diabetic retinopathy still remains preventive maintenance (good control of blood sugar levels, good diet, frequent medical check-ups, lower than normal blood pressure, and protection of the eyeball from any physical injury. The next best treatment involves early detection of changes in visual acuity. Treatment started at the first signs of trouble is generally more successful than that which is started later.

Standard treatment for moderate to advanced retinopathy is photo-coagulation of the new blood vessels either with xenon arc or, in severe cases, with blue and green frequency lasers. Laser treatment is not without some danger of causing a massive hemorrhage, and, because of the nature of the eye, every laser shot destroys some of the side vision in order to save some of the central (most acute) vision. Other treatment involves vitrectomy (described briefly before) and the use of drugs such as Sorbonil or Sorbitel. The mechanism by which these drugs slow down the inevitable retinopathic process is very complex, but simply put, it blocks one of the major system pathways.

If you or a friend would like to remember the Diabetics Division of the National Federation of the Blind in your will, you can do so by employing the following language:

"I give, devise, and bequeath unto Diabetics Division of the National Federation of the Blind, 1800 Johnson Street, Baltimore, Maryland 21230, a District of Columbia nonprofit corporation, the sum of $_____" (or "_____ percent of my net estate" or "the following stocks and bonds: _____") to be used for its worthy purposes on behalf of blind persons."

Is the Novolin Pen for blind diabetics?

by Janet Lee

Janet Lee evaluates the Novolin Pen.

(Editor's Note: Janet Lee, an educational consultant who works with blind diabetics at Blind Learning in New Dimensions, Inc., Minneapolis, Minnesota, has experience working as a health educator, athletic trainer, and emergency medical technician. Janet serves as Vice-President of the Diabetics Division of the National Federation of the Blind.)

Novo-Nordisk produces two pen-type devices. One is the Novolin Pen which administers insulin in 2-unit increments. It has a plastic casing, disposable needles and 150-unit insulin cartridges. The other is the Novo Pen which is a metal or nickel-plated device that looks like a pen and measures insulin in 1-unit increments.

The Novolin Pen is available through Novo-Nordisk Pharmaceuticals, Inc. which may be contacted from points in the United States by calling 1-800-727-6500. It may or may not be available at your local pharmacy. Any pharmacy may order the Novolin Pen or the Novo insulin cartridges by contacting the Bristol-Squibb Pharmaceutical Distribution network. The pen has been available for about three years in the United States. The recommended retail price for the Novolin Pen is $39.95. A box of 100 disposable needles for the Novolin Pen costs approximately $10.00. Cartridges can be purchased that contain Regular, NPH, or a 70/30 NPH/Regular combination. A box of five cartridges costs about $14.00. Each cartridge contains 150 units of insulin. Lente and Ultra-Lente insulin are not available for use in the Novolin Pen.

Novo-Nordisk does not directly recommend the use of the Novo Pen or the Novolin Pen for blind diabetics. The company qualifies this by saying that the Novolin Pen has characteristics that may be beneficial to a diabetic with "diminished vision."

If you are a blind diabetic or a professional working with diabetics who are blind, there are some questions that you should ask before purchasing or recommending a Novolin Pen.

Question: If I'm interested in using the Novolin Pen and now using Lente or Ultra-Lente insulin, will my doctor recommend a switch to Regular, NPH or 70/30 combination insulin?

Answer: Lente and Ultra-Lente insulin are not available in the Novolin Pen fill cartridges. A diabetic using the Novolin Pen must use Regular, NPH or 70/30 combination insulin. Although the Regular, NPH and 70/30 combinations are the most common insulins, your doctor should determine whether or not a change in insulin is appropriate.

Question: If I am using NPH and Regular insulin in proportions other than 70/30, how can I use the Novolin Pen?

Answer: If you need Regular and NPH insulin in proportions other than the 70/30 combination, you will need two Novolin pens. One pen should contain Regular insulin and the other should contain NPH insulin. You must give two injections to receive NPH and Regular insulin at the same time.

Question: Is it more expensive to use the Novolin Pen than to use traditional vials of insulin and disposable syringes?

Answer: Depending on the type of disposable syringe you are using, the cost can be $12.00 or more per 100 syringes and the cost of human insulin is approximately $14.00 for a 10cc vial (1000 units of insulin). The initial expense for the Novolin Pen is $39.95. The disposable needles cost about $10.00 per 100 and the cartridges cost approximately $14.00 for a 5-pack (total of 750 units of insulin). Because the Novolin Pen device has a lifetime guarantee, it will be replaced free of charge. If you are using a Novolin Pen, you need to figure the cost of wasted insulin. With the suspension insulin cartridge, the manufacturer does not recommend initiating an injection when the cartridge contains less than 12 units. For every injection, you clear air from the needle and cartridge, wasting more insulin. The FDA has required Novo-Nordisk to notify suspension insulin users (NPH and 70/30 type insulins) that they must dispose of a cartridge once it has been in use in the pen for seven days whether or not it is empty.

Question: Will my insurance cover the cost of my insulin supply in cartridges?

Answer: Do not assume that your insurance company or medical plan will cover the cost of diabetes supplies related to the Novolin Pen. Check it out before you switch.

Question: When I'm traveling, will I be able to get insulin cartridges immediately if my insulin cartridges are lost or damaged?

Answer: I spoke with Carol Laws-Krause who is a registered nurse working for Novo-Nordisk in the professional services department. She recommended that if a diabetic is traveling, and his/her insulin is lost or damaged, he/she can call a toll free number: 1-800-727-6500. This number is answered from 8 a.m. to 8 p.m. Eastern time by medical personnel who will provide assistance. If your Novolin Pen or insulin cartridges are defective, Novo-Nordisk will replace them. Ms. Laws-Krause said that if it is necessary, Novo-Nordisk will ship items by air express.

I called eight Walgreen Pharmacies and eight Snyder Pharmacies in the Minneapolis-St. Paul area. One Walgreen Pharmacy had one Novolin Pen, one box of 100 disposable needles, and one 5-pack of 70/30 insulin cartridges. None of the other pharmacies stocked the Novolin Pen or supplies.

Question: Is the Novolin Pen more portable than traditional insulin injections systems?

Answer: The Novolin Pen, when carried by itself, is smaller than syringes and vials of insulin. If you carry the Novolin Pen with extra supplies in the hard-shell carrying case, there is little or no difference between the size of this case and a case containing vials of insulin and syringes.

There is still some controversy about the effect of jarring and vibration on insulin when it is being carried. As mentioned previously, the FDA has required Novo-Nordisk to notify suspension insulin users (NPH and 70/30 type insulins) that they must dispose of a cartridge once it is in use in the pen for seven days whether or not it is empty. Some diabetics who carry the Novolin Pen with them report that they have difficulty administering an accurate dose of insulin. These diabetics have observed bubbling and frothing in the partially used cartridge, making it difficult to perform the manufacturer's recommended precautions for clearing air from the cartridge and needle. Carol Laws-Krause, the professional services nurse at Novo-Nordisk, said she had not encountered this and could not suggest a solution to the problem. Some diabetics have reported this problem in both the Novo and the Novolin Pens. On the other hand, many diabetics have not encountered this problem and believe the Novolin Pen is a definite step up from traditional insulin therapy.

Question: Can I rely on the techniques recommended by the manufacturer to accurately measure and administer insulin using the Novolin Pen?

Answer: The instructions accompanying the Novolin Pen are easily understood. Because the manufacturer does not directly recommend this device for blind diabetics, the instructions are not provided on cassette or in Braille.

A blind diabetic must alter some of the manufacturer's suggested techniques. For example, the suggested procedure to clear the needle and cartridge of air must be modified. The company suggests that you hold the pen with the needle pointing upward, press the push button and a drop of insulin should appear at the needle tip. Blind diabetics must use more insulin and actually squirt the insulin against the hand while holding the pen perpendicular to establish that they have ejected the air from the needle and cartridge. This technique may not be useful to a diabetic with neuropathy because he/she may not be able to feel the insulin on his/her hand.

All of the techniques suggested by the manufacturer can be performed without vision. Neuropathy may interfere with identifying the markings on the device. Diabetics with arthritis may have difficulty manipulating the Novolin Pen.

Question: Does the Novolin Pen need to be refrigerated?

Answer: The manufacturer says no. Novo-Nordisk specifically instructs the Novolin Pen user not to refrigerate the pen device even if it has insulin in it. However, it is recommended that all spare cartridges for the Novolin Pen be stored in the refrigerator. The pens are unlikely to be kept in a cool environment because they are designed to be carried. However, because the volume of insulin in Novolin pens is small, many diabetes educators believe this insulin is vulnerable when carried for a long period of time in a warm environment next to the body. I would suggest you follow the manufacturer's recommendations although there seems to be a serious difference of opinion here.

There are more questions that could be asked. However, the most important thing for a diabetic to evaluate is whether or not the Novolin Pen or the Novo Pen enhances his/her ability to independently manage his/her diabetes. Many diabetics and diabetes educators are satisfied with the Novo Pen and the Novolin Pen. They believe the pen devices are functional, convenient, and are a real step up from the traditional insulin measurement systems.

For me, the advantages simply do not outweigh the disadvantages. Despite the efforts of Novo-Nordisk to accommodate people in emergency situations, it is difficult for me to recommend the use of the Novolin Pen. I think it's important for diabetics to have the insulin and supplies they need available where they live and when traveling.

Anyone interested in illustrated instructional brochures, videotaped instructions, or other information about the Novo or Novolin Pen can contact Cecilia Weisenberg, Marketing Services Administrator, Novo-Nordisk Pharmaceuticals, Inc., Suite 200, 100 Overlook Center, Princeton, NJ 08540-7810; phone: (609) 987-5800.

Stretch before play, or how to beat the "weekend athlete" syndrome

by Jane Norstrom, M.A.
Exercise specialist, Minneapolis

Have you ever charged full speed into a family reunion volleyball game or a company picnic softball game and felt stiff and sore for the next few days? While it's fun to participate, it's certainly no fun to have pulled or strained muscles, or worse. If you'd rather be a "doer" than a "watcher," we have a few tips for you.

Muscles become stiff and sore when physical activity is performed before the body is properly warmed up. This is also when injuries are most likely to occur. The best prevention is to take a few minutes to prepare your body for activity before you plunge in.

Diabetes...Actively Staying Healthy (DASH): Your Game Plan for Diabetes and Exercise is a new book to help people with diabetes exercise safely. It has something for everyone, young and old, beginner to seasoned athlete. Following these warm-up suggestions and stretches from the book will go a long way in helping you beat the "weekend athlete" syndrome:

Warm-up

"The warm-up period prepares the body for exercise and should last about 5 to 10 minutes. Begin by walking or doing other movement for 5 to 10 minutes and then do a few stretches for about 5 minutes. This period of gradually increasing activity allows the heart rate and body temperature to rise in preparation for more vigorous exercise. During the warm-up, your pulse should be increasing gradually."

Try a few of these general stretches from the *DASH* book:

Stretch Arms

Lift both arms up to ceiling. Stretch. Hold for 10 seconds. Stretch arms out to side, hold 10 seconds.

Barrel Hug Stretch

Stand with feet together, knees slightly bent, arms fully extended. Bring backs of hand together slowly while stretching shoulders and upper back forward. Abdominal muscles should be pulled in, back rounded.

Back Extension

Place hands on lower back for support. Lean chest and shoulders backward, hold 5 seconds. Stand up straight. Repeat three times.

Thigh Stretch

Grasp ankle of one leg and bring heel toward seat. Feel the stretch in the front top of the thigh. Hold 20 seconds. Switch legs. Stretch each leg three times. Variation: hang on to pants leg, or just bend leg and hold.

Calf Stretches

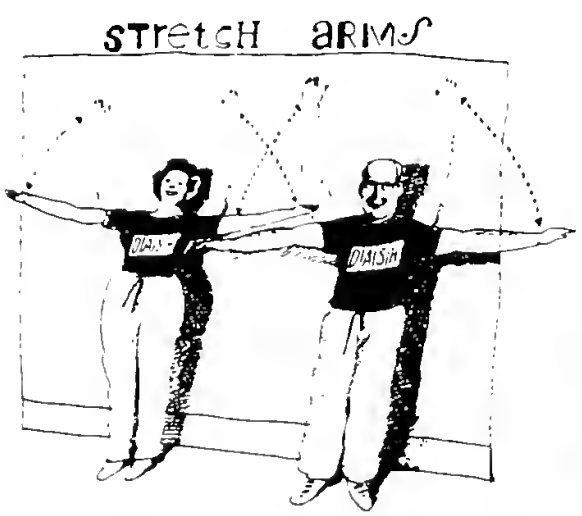
Bend one leg forward, straighten other leg behind, and lean forward, keeping heels on the floor. Place both hands on bent knee. Feel the stretch on the back of the legs. Hold 20 seconds. Switch legs. Stretch each leg three times.

Same position, except bend the back leg slightly. Hold 20 seconds. Switch legs and repeat. Feel this stretch mid-calf to ankle of the back leg.

Place the ball of one foot on the edge of a stair or curb. Use a handrail for support. Slowly lower heel below the step. Feel this stretch in both the front and back of the lower leg and ankle.

Remember, *STRETCH* for success! Your body will thank you.

(Note: Reprinted with permission from *Living Well With Diabetes,* Summer 1990, International Diabetes Center, Minneapolis. All rights reserved.)



Ask Dr. James

by Ronald James, M.D.

Ronald James, M.D., long-term insulin-dependent diabetic, directs Midwest Diabetes Treatment and Education Center, Columbia, Missouri. Dr. James is also the Medical Director of the Missouri Diabetic Children's Camp, Inc.

(Note: If you have any questions for Dr. James, please send them to the editor. The only questions Dr. James will be able to answer are the ones used in his column.)

What causes Type II diabetes? Should dietary regimens be different for Type I and Type II diabetics?

Although Type II diabetes may be several different diseases, a common characteristic is that individuals with Type II diabetes are able to produce some insulin. As a result, they do not go into diabetic ketoacidosis (coma) and die because of this. On the other hand, by virtue of the fact that they have diabetes, they have a limited ability to produce insulin and thus do not produce adequate quantities to keep the blood sugar within the normal range at all times.

There are different opinions among physicians regarding the diets for Type I and Type II diabetics. However, it is my feeling that they should differ little. I feel that both Type I and Type II diabetics should be on a sugar free diet that is divided into at least three meals and three snacks, that it should contain a reasonable amount of fiber and be restricted in fats as recommended by the American Diabetes Association. For overweight diabetics, the diets should be restricted in calories in an effort to attain and maintain normal weight.

When do you recommend that emergency medical help be called for an insulin reaction? If administering sugar to a diabetic in insulin shock, how long is reasonable to wait for him or her to regain consciousness?

It is my feeling that emergency help should be called whenever a person attempting to treat a diabetic having an insulin reaction is unable to appropriately administer sugar in some form or glucagon by injection. After giving adequate sugar (or glucagon) to a diabetic in insulin shock it is reasonable to wait approximately 30 minutes for him/her to regain consciousness. If he/she has not responded within 30 minutes the problem may not be just a simple insulin reaction. It would then be appropriate to summon emergency help.

Are there problems with menarche and menopause in diabetic females?

Poorly controlled diabetes, like many other chronic diseases, may affect metabolic and hormonal functions of the body. As a result diabetic females may fail to ovulate and thus fail to have menstrual periods. This seems to be related to poor control of the diabetes and not just to having diabetes as such. Therefore poorly controlled diabetics may have a delay in the onset of menstruation (menarche), early cessation of menstrual periods (menopause) or intermittent disruption of menses, depending on when the diabetes is poorly controlled.

Your piece of the sky

(Continued from page 1)

nearly as well as I can walk on my one leg or hear nearly what I can hear with my one good ear. I am not saying that I derive great comfort from other people's misfortune and loss, but my survival does make me appreciate what I have and what I can do.

In the next two weeks I will make three appearances at different schools. Two of the visits are to meet with second graders to introduce the kids to Braille and to give them the opportunity to actually meet a blind person. My other appointment is with seventh graders in a problem solving class where it seems I have become an annual event. Last year I talked to them from a wheelchair. This year I will do it on my feet. At some time during my talk, I will pull my leg off and show it to them. Hey, those kids are fantastic! I'm not asking for sympathy and they sure won't be giving it to me. They will grill me like I was on the barbeque with question after question as soon as they get relaxed enough with me. That is when I start to feel good. I am sharing, making friends and I may just be giving someone an extra ounce of strength that they may someday be able to draw from. Is that my goal in life? You betcha! But also I want to go to Australia, England, Africa, and maybe even the moon. So for now I say, "Cheerio, old chap!" If you can't go for broke at least go for bent!

A letter to the editor

Dayton, Ohio
July 6, 1991

Ed Bryant, Editor
Voice of the Diabetic

Dear Ed,

As a rehabilitation teacher for the visually impaired, I have found the Diabetics Division of the National Federation of the Blind to be an excellent resource. In the winter of 1988, I chose to consult with you on a personal matter. As a result, the Diabetics Division has played a major role in my family's lives.

My husband, Roy, was diagnosed as a diabetic at age nine. Consequently, he has experienced many of the horrible complications resulting from diabetes. During the last five years he has lost all of his sight, almost lost a toe, suffered pneumonia, and gone through kidney failure and dialysis. The medical complications go on and on.

Of course, these medical problems are only a part of the damage caused by diabetes. Without going into great detail, Roy's life was ripped apart at age 24. He lost his job, his girlfriend, driver's license, independence, and hope for the future.

When dialysis treatments began, his doctor advised him to consider a kidney transplant. The doctor also mentioned the possibility of a pancreas transplant one day. As you can imagine, our family had several questions. Unfortunately, Dayton, Ohio is not the place to be when you have questions such as we did.

It was at this crucial point that you and the Diabetics Division played a major role in our lives. Your support, information and compassion will never be forgotten. It was you who referred us to a woman in Cincinnati who had received a pancreas transplant from the University of Cincinnati. She then directed us to Dr. Munda, who was, to say the least, "a sight for sore eyes."

As a result of the efforts made by Dr. Munda and the wonderful transplant team at the University of Cincinnati, Roy is no longer a diabetic. On June 15, 1990, Roy received a fully functioning kidney and pancreas. The first three weeks of his hospitalization were quite tense due to complications. An infection caused Roy to lose half of the pancreas. Fortunately, the remaining half is producing a sufficient amount of insulin. This means more to us than I can ever express. Actually, we feel like screaming to the whole world, "Roy has beaten diabetes!"

If it hadn't been for your assistance, who knows where we would be today. Thank you so much, Ed! If there was ever any doubt, believe me, dreams can come true, miracles are a reality, and it is people like yourself and the fabulous transplant team at the University of Cincinnati that make them happen.

With much appreciation
Katrina and Roy Anderson

Dear friends and family . . .

The Diabetes Treatment Center of Houston, Texas asked its past and present patients to comment on measures that family members or friends can take to better support the person with diabetes. Some of the responses follow.

If you have comments that would help others better understand diabetes, please send them to the ***Voice*** *editor.*

. . . Please get tested for diabetes, especially if it's in your family. If you are diabetic then get on your "diet" and follow your doctor's rules. Get help now!

. . . I would like for you to be understanding of the fact that as a diabetic, I have my good days and my bad days. On good days, I feel as great as anyone else, but on bad days, I may be sluggish, unenergetic, irritable, and may even need your assistance or attention as I move through my daily activities.

. . . I would like my husband to stop buying all the things I can't eat, because I am very tempted to eat, and do so most of the time. I really need help to say no.

. . . I wish you would learn how to give a shot. But more than that, I wish you would learn what blood sugars are. After I test my blood sugar you always ask, "Well, how was it?" You should know by the number I tell you how it is. Also, when it's time to eat, people always have several reasons why I should put off my shot. They don't understand that when it's time, it's TIME.

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*Data on file, Boehringer Mannheim Diagnostics

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FDS-264

The rationale

by Anita Siegel

From the Editor: Anita Siegel expressed her desire that ***Voice*** *readers be made aware of her situation. She has diabetes mellitus, which means, in a nutshell, high glucose levels. She also has diabetes incipitous, a disease very different from mellitus. Excess excretion of water is a symptom of this condition, which is caused by improper functioning of the pituitary gland. Diabetes incipitous can lead to extreme dehydration, unless the patient takes medication to limit urination.*

Anita believes that frequent headaches she suffered seem to have been caused by a drug she was taking to combat diabetes incipitous, and advises readers to contact a physician if they experience similar side effects.

"I think I may have finally found the reason for your headaches," my father told me at the end of the day.

"What?" I asked. I wasn't sure that I had heard him correctly. I had just completed a very full day at the Jewish Guild for the Blind. I wasn't used to that, and was very tired.

My father continued, "Yes. I got the idea of calling Parke-Davis, you know, the one that manufacturers your DDAVP. I told the woman who answered the phone about the headaches you have been having. She said that they had been receiving other reports of headaches from people who were taking DDAVP. She wanted me to have your doctor call them and I told Dr. Carson to call them."

Surprised, I asked my father, "So you think the DDAVP might have been causing my headaches? I've been to so many doctors, and none of them know what these headaches I have are due to. They all choose to blame it on diabetic neuropathy ... but so much pain? Anyway, I have aspirin now. So, I really don't need that information, but thank you," I told my father discouragingly.

"Yes, but now you may have a reason. The aspirin does help?" he inquired.

I responded, "Yes, I've hardly felt any pain today while it was working. I have to take three of them every six hours, with milk."

"Well, I called Dr. Carson, and he took you off DDAVP. He said to take Diaped instead, every few hours as needed. Mother was really the one who spoke to him. She'll tell you about it when she comes home from work. Here she is now!" my father said, hearing the door click open.

After my mother came up the steps and put her things away, she told me the same story that my father had related.

I knew we had an emergency bottle of Diaped in the house and I started using it that night instead of DDAVP. Of course, I began using it a lot more than just for emergencies and soon had to ask Dr. Garson for another prescription. Without DDAVP the pain soon diminished and I had to use aspirin less and less frequently.

I am still on Diaped today and do not want to go back on DDAVP. The pain is now almost nonexistent, but I still have some from time to time. That pain, I can believe, is one of my migraines or diabetic neuropathy.

Comments on Hot Dots and the Arkenstone Reader

by David Andrews

David Andrews directs the National Braille and Technology Center for the Blind, Baltimore, Maryland.

(Note: This article appeared in the June 1991 issue of the *Braille Monitor,* a national magazine published by the National Federation of the Blind.)

David Andrews is the Director of the National Braille and Technology Center for the Blind. As a regular part of his daily activities, he will be making analyses of technology for the production of Braille, voice output, and related matters. The aim is to help consumers decide whether the product would be of value to them.

Arkenstone Reader II

The reading machine market was created by Kurzweil Computer Products in the late 1970s and early-to-mid 1980s, but it has been made competitive by the arrival of Arkenstone, Inc. in the late 1980s. Arkenstone markets a line of PC-based reading system to blind people.

In January of 1991 it introduced new software for its Arkenstone Reader line. Primarily the software upgrade offers new and improved interfaces, but it has at least one superb feature — the ability to determine if a page is on the scanner sideways or upside down. Further, even if the page is improperly oriented, the system will still read it.

The Arkenstone Reader II features three user interfaces: EasyScan, ArkScan, and Scanall. EasyScan, originally written by Noel Runyan of Personal Data Systems, has been bundled with all Arkenstone Readers for about a year. The latest version has a number of new commands, including ones to control the orientation identification process and the new Quick Speech feature. This generates speech while the machine is still scanning. Though it means that you start reading sooner (as little as fifteen seconds after scanning commences), the speech is a little choppy. Some users report liking the new feature; others do not. Finally, the Quick Speech may not read all columns in a multi-column document although the data are present and can be read with EasyScan's normal browser program.

The EasyScan software is an interactive command-driven program. You generally type in one-, two-, or three-letter mnemonic commands, such as "CN" for "Contrast Normal." Once you learn them, they are fast; but with the new software, there are a lot to master. The list of commands in the help facility is four screens long. Other new features include improved document structure analysis, expanded prompting and messages, the ability to save to devices such as VersaBraille as well as to files, support for additional word processor formats, user-definable dictionaries to improve scanning accuracy, and more.

The second interface is ArkScan, a modified version of the standard Calera TruScan software. Calera makes the optical-character-recognition software/hardware that Arkenstone uses. The ArkScan software works well with screen review programs and is easy to use. The menu-driven program allows you to control all features of the system and to set up configuration files that all three interface programs use. If you like to experiment, this is the software for you.

There is also a command line program Scanall, which can be used by itself or in conjunction with batch files. This program allows you to perform routine scanning chores easily and quickly from the DOS command line.

I am asked, almost daily, which is better, the Arkenstone or the PCKPR from Kurzweil (now Xerox Imaging Systems). The quick answer is that they are pretty close. The PCKPR will run on an XT-class computer, has a very easy and straightforward user interface, and starts reading quickly. The Arkenstone is slightly less expensive, offers a choice of interfaces, gives the fiddler more to fiddle with, and offers the automatic orientation identification option, which alone may be enough reason for some people to choose the Arkenstone. Its value to a blind person can't be overestimated. Further, although we have not conducted exhaustive, scientific comparisons yet, the Arkenstone Reader seems to be slightly more accurate in day-to-day use, although the differences are minimal. The PCKPR does have a Learn feature, which probably improves its accuracy as it scans a multi-page document. We plan on doing more thorough tests of all scanning systems later this year. Finally, the Calera/Arkenstone system offers an applications program interface that others are starting to exploit. In a future issue we will review Personal Data Systems' money identifier and Braille graphics programs for the Arkenstone called BUCKSCAN and PICTAC, respectively.

For further information or an opportunity to see different reading systems, contact the National Braille and Technology Center for the Blind at (301) 659-9314. For information from the two companies call (800) 444-4443 for Arkenstone, Inc. at 1185-D Bordeaux Drive, Sunnyvale, California 94089; or call (800) 343-0311 for Xerox Imaging Systems, Kurzweil Reading Machine Division, 185 Albany Street, Cambridge, Massachusetts 02139.

Hot Dots Version 3.0

Hot Dots Version 3.0 is a Braille translation/formatting program for IBM and compatible computers. Though the program has been around for a number of years, it has not been a major force in the translation field, which is ironic because its maker, Raised Dot Computing, has the lion's share of the market in the Apple II world with its BEX and TRANSCRIBEX products.

Most of the components in Hot Dots have been rewritten with version 3.0, and the program works much more smoothly and accurately than

previous versions. Rewritten components include both the back and forward translators and the manual.

One of the program's most notable new features is its ability to import files DIRECTLY from some thirty word processors. It accomplishes this feat by incorporating a commercially available conversion utility into its innards. I was only able to test WordPerfect, WordStar, and ASCII files. The program worked well with all except WordStar files. I had a WordStar Version 5.0 file, but Hot Dots only handles files through Version 4.0. It also did not seem to handle WordStar 4 files quite as well as the other tested types, but most well-known word processing programs are supported.

Hot Dots can be run from a menu, directly from the DOS command line, or by using batch files. Translation and formatting a file is a multi-step process, so some assistance, a menu or batch file for example, is helpful. The program first imports a file and inserts its formatting commands. These are the dollar sign commands which will be familiar to all old BEX users. This file is then converted into an unformatted Braille file and finally into a formatted Braille one. If you need precise control of translation or formatting, the first file (called the HD$ file) can be edited.

Most of today's Braille translators provide some level of automatic formatting assistance. Hot Dots Version 3.0 does this by producing its HD$ files. In general translators tend either to underformat by throwing out too much of the information from the original file or overformat the Braille output. Hot Dots leans toward overformatting, but not badly so, and you can always edit the HD$ file. It also handles hanging Indentations well, something that several other programs have problems with. Further, there is a pre-processing batch file to handle files with tables of contents, sometimes a problem.

The program can also back-translate Braille files into print files, and the dollar sign commands are designed to facilitate the production of print and Braille files from the same master file. Hot Dots also supports Dipner Dots, a method pioneered by Raised Dot Computing, of producing draft quality Braille on a daisywheel printer. Dipner Dots can also be printed on regular paper by an ink-print printer to facilitate viewing by a sighted person. Hot Dots Version 3.0 also features a new view function which allows anyone, sighted or blind, to direct the ASCII Braille output of a translation to the computer's screen. With a little practice a person could learn to read this output to check formatting without wasting paper.

The manual for the program is clear and well written and features a tutorial to take you through all basic procedures and interface instructions for all commonly used printers.

Raised Dot Computing is a major player in the Apple world, and Hot Dots Version 3.0 is definitely a competitive product. The company offers some of the best customer support in the business and has an ongoing commitment to Braille. Anyone interested in Braille translation should seriously consider Hot Dots.

For further information contact the National Braille and Technology Center for the Blind at (301) 659-9314 or Raised Dot Computing at (608) 257-9595 or write the company at 408 South Baldwin Street, Madison, Wisconsin 53703.

Peanuts and toy horses

by Tom Stevens

Tom Stevens, chairman, Associates' Committee. "Our resources are wonderfully powerful when we activate them."

From the Editor: Tom Stevens is chairman of the Associates' Committee for the National Federation of the Blind. He is an active Federationist who has served the NFB for several years. His past positions include the office of president of the NFB of Missouri, president of the Columbia chapter of the NFB of Missouri, and editor of the ***Blind Missourian,*** *the publication of the NFB of Missouri. Tom realizes the importance of raising funds to help the Federation in serving all blind people.*

The music started and I knew that the toy horse on the sidewalk in front of the grocery store had been activated by a quarter. The voices nearby indicated three children. After the music stopped, riders changed and the music started again. Did you ever notice how abruptly that music stops, or, more accurately, is interrupted?

When the apparatus stopped abruptly again, there was a clamor for more. But there were no more quarters, the parent reported.

That did not deter one of the

(Continued to page 14)

Job Opportunities for the Blind

Lorraine Rovig, Director, Job Opportunities for the Blind, a national job referral program for blind people.

Job Opportunities for the Blind (JOB) is a joint program of the National Federation of the Blind and the U.S. Department of Labor. This is an example of your tax money at work. Anyone who is legally blind and looking for work in the United States is invited to be included in the JOB program. JOB provides opportunity for blind job seekers. Through the JOB program, 997 blind job seekers have found employment as of June 30, 1991. Services are available to agencies, individuals assisting blind job seekers, and employers interested in hiring competent blind workers. Hiring the blind is reasonable, proper, and necessary.

All JOB services are free of charge to blind job seekers. ***The JOB Bulletin,*** an audio cassette magazine published by JOB, comes out every six weeks. Through ***The Bulletin,*** blind job seekers may find many useful ideas on interview techniques. Such job seekers may be encouraged to continue job hunting because of the success stories of other blind job seekers.

If you have some of the following concerns, the JOB program is for you.

• Do you know anyone who is blind and has a good job? Do you wonder how you can find a job for yourself?

• Do you ask yourself, "What job can a blind person do?"

• Do you want to ask questions about the techniques that allow one to be competitive and success in real jobs?

• Do you want to meet someone who successfully uses blind techniques only, or do you need advice on combining low vision techniques with blind techniques? Do you need to know how to plan now for the future when you may have less sight and your low vision techniques won't work for you?

• Do you need tips on dealing with interviews or employers?

• Do you want to meet legally blind people who are scientists, secretaries, mechanics, telephone operators, counselors, salesmen, psychologists, English teachers, or in many other occupations?

• Do you have questions about voice output and Braille output computers or the Arkenstone reader vs. the Kurzweil personal reader? Do you need ideas for funding the purchase of these or other useful aids?

• Do you wonder how you would continue your present job if you became blind? Would your employer need to be educated on alternative techniques that would allow you to continue working?

Following is a sample table of contents for ***JOB Recorded Bulletin*** #138, June 12, 1991.

• "Giving Good Answers to Tough Interview Questions," by Clair Macintosh, *McCall's Magazine,* May 1991.

• "How to Beat a Tight Job Market, Look Beyond the Obvious," by James E. Challenger, *Dallas Times Herald* Employment Section, May 26, 1991.

• "Masters is Ticket in Personnel Field Waste Managing," *Chicago Tribune,* May 12, 1991.

• "The Job Hunt College Grad Seeks Parents' Resources," *Dallas Times Herald,* May 12, 1991.

• "Consider Career Affairs When Changing Careers," *Dallas Times Herald* Employment Section, May 12, 1991.

• "Some Tips from Ms. Rovig," found in the *Baltimore Evening Sun.*

• "Report from Olive Wells," JOB Field Service Network Volunteer in Pennsylvania.

• "Nonprofits Offer Careers for People with a Cause," *San Francisco Sunday Examiner,* May 19, 1991.

• "Information on a Book, Finding a Job in the Nonprofit Sector."

• "A Letter from Software DEM," in Leesburg, VA, about a product for SF1710.

• "A Letter from the *San Francisco Examiner,*" June 2, 1991, for people who wish to work at home.

In addition to articles similar to those listed above, every issue of ***The Bulletin*** has updated nationwide JOB listings. Interested persons may call JOB coordinator, who provides useful information. Also, one can attend free JOB seminars held throughout the nation. For more information regarding any aspect of the JOB program, contact: Lorraine Rovig, Director, Job Opportunities for the Blind, National Federation of the Blind, 1800 Johnson Street, Baltimore, MD 21230; phone toll-free: 1-800-638-7518; or locally call: (301) 659-9314.

Ann Terry is a registered dietitian who works at the State Hospital in Fulton, Missouri and at the Veterans Administration Hospital of Columbia, Missouri. She graciously calculates the diabetic exchanges and food values for our recipes.

Send your great ideas to the editor. He is the official taste tester and needs recipes to test his taster.

Martha Young, of Braymer, Missouri, is the energetic president of the North Central Chapter of the NFB of Missouri. She was a Weight Watchers lecturer for 11 years, and has revamped the following recipes for diabetic diets.

Calico Chicken

3 boneless half chicken breasts, skinned and sliced
1 medium onion, chopped
2 cloves garlic, minced
½ tsp. thyme, crushed
1 tbsp. olive oil
1 can new potatoes, drained and cubed
1 can mixed vegetables, drained
1 can stewed tomatoes (no salt added)

In large skillet cook chicken, onion, garlic and thyme in oil. Cook until chicken is done. Add all other ingredients. Bring to boil. Reduce heat and simmer uncovered 10 minutes.

Top with Parmesan cheese if desired. Garnish with parsley.

Yield: 6 servings; Calories: 180 per serving; Diabetic Exchanges: 1½ meat and 1 bread

Glazed Baby Carrots

4 oz. fresh whole carrots
½ tsp. salt (optional)
3 tbsp. Sugar Twin (sugar substitute)
1 tbsp. low-calorie margarine, melted

Boil baby carrots until tender. Remove from liquid. Reserve liquid. Place in casserole. Cover with Sugar Twin. Broil for 15 minutes. Baste with reserved liquid, turning carrots. Drizzle with low-calorie margarine before serving.

Yield: 1 serving; Calories: 100; Diabetic Exchanges: 2 vegetables, 1 fat

Rice Pudding

8 oz. non-fat liquid milk
1 egg (or liquid egg substitute)
½ cup cooked rice
½ tsp. vanilla (or to taste)
Sweetener equivalent to 9 tsp. sugar
Nutmeg and cinnamon

Scald milk. Pour in baking dish. Stir in egg and rice, vanilla and sweetener. Set in a pan of water. Cook for one hour. Sprinkle with spices.

Yield: 1 serving; Calories: 260; Diabetic Exchanges: 1 skim milk, 1 bread, 1 meat.

Some nutritious holiday food ideas

Holiday meals can be nutritionally upgraded versions of traditional menus (fresh turkey, steamed vegetables, whole grain rolls, pumpkin pie with a whole wheat crust ...) or totally unconventional (fettucine or shrimp Creole). There are no "rules": it's up to you.

Menu planning and meal preparation are most fun when they're group projects. Get everyone who will be eating involved.

"'Tis a gift to be simple ..." Holiday meals don't have to be elaborate. An attractive, good-tasting and nutritious meal can be very elegant. Some simple but nice touches include a wooden bowl filled with red apples and unshelled nuts, music, and candlelight.

All of the following recipes have been tested.

Beverages: Sparkling water with lemon, lime or orange slices; natural soft drink — two parts juice mixed with one part sparkling water; herbal teas.

Hot Cider

— 4 cups apple cider
— 1½ cups water
— 2 cinnamon sticks
— ½ teaspoon each allspice and cloves

Heat on low in a crock pot. Strain, if spices were not put in a garnish bag.

Grains: Wild rice; whole grain pasta with herbs; warm whole grain rolls (Great Harvest, Irene's).

Vegetables: Cauliflower, broccoli and carrots steamed together; raw vegetable tray with favorite dip; baked sweet potatoes or yams; baked winter squash.

Cranberry Relish

— 1 10-ounce package raw cranberries, washed and drained
— 1 orange, seeded
— 1 apple, cored
— 2 stalks celery, finely chopped
— ½ cup chopped nuts
— 7 packets Equal

Place a small amount of cranberries, a slice of orange and a slice of apple in blender and chop coarsely. Repeat until all of the orange, apple, and cranberries are chopped. Empty cranberry mixture into a mixing bowl. Add chopped celery, nuts and Equal to cranberry mixture. Mix well and chill overnight. Makes 6 ½-cup servings.

Orange Almond Salad

— 1 head leafy lettuce or mixed greens
— 2 oranges, chopped into bite-size pieces
— 2 scallions, chopped
— ½ cup chopped almonds, toasted

To toast almonds, put in an ungreased skillet on low heat until brown (about 15 minutes). Stir nuts occasionally so they don't burn. Toasting brings out the flavor of the nuts. Wash and dry lettuce and tear into bite-size pieces. Add oranges, almonds and scallions. Just before serving, toss with oil and vinegar dressing.

(Note: This article appeared in the *Kentucky Diabetes News,* published by the Kentucky Diabetes Foundation, Lexington, Kentucky.)

Peanuts and toy horses

(Continued from page 13)

youngsters. Why were there no more quarters? "The store sells them; go get some more," he reasoned.

I was both amused and annoyed. That child needed a bit of understanding, probably applied by the hand onto the part that had been seated on the toy noise-maker. But the parent, whatever her own emotional reaction, went away with the children.

As I invited folks coming and going to buy a bag or ten of peanuts, guaranteed calorie-free if given as a gift to a friend or even an enemy, I thought about resources. Every bag of peanuts means 48 cents added to our treasury. How many bags does it take to make a difference?

Well, that seemed a lot, at first. Then, I thought more. Our chapter in Columbia, Missouri is on the NFB preauthorized check plan, for $25 per month. If one bag, or three, or thirty went to make up that monthly contribution, it means that, for example, per bag, we could deliver two more ***Voices of the Diabetic;*** we could help buy public service announcements; we could buy and sell aids and appliances at cost. So, that small sale could be significant. I wasn't selling peanuts for myself, but for those who receive the services that the NFB subsequently offers. Each bag of peanuts sold helps make a difference.

Thinking a bit further, I reasoned that by just setting up the sale table, we set in motion a chain of events. Hatlo used to have a cartoon that showed a long chain of events, which usually took upward of 20 smaller interlocked frames, for completion of a task. With our peanuts and candy sales, we are links in a chain.

You may be aware that I am a very strong advocate of Associate membership. It is an outreach, a way to inform the public about the organization we are PLEDGED to support. The decision a person makes to join or not, or to give or not, is personal. One grows in knowledge in making the decision.

Like the bag of peanuts, an Associate sets in motion a chain of events. It permits events that could not otherwise be. Thus, as the ***Voice of the Diabetic*** is a resource, so are peanuts and Associates (or whatever the fundraising project). It simply depends on where one wants to enter the chain.

The bag of peanuts not sold is a resource that stayed in the store and started no toy horse. The Associate who is not enrolled, and the invitation that is not extended also represent resources not used.

When I hear of circumstances which could have been rectified but were not, because we did not have a quarter, I am deeply saddened. I almost feel like doing as that kid did to his parent, except that I want to do it to fellow Federationists. I want to yell that the resource does in fact exist. It is still in the store. I cannot bring it into action. The "parent" — the NFB member — must do that.

To say the least, our NFB resources can be wonderfully powerful when we activate them.

But where to reach? I encountered an acquaintance as we stood at a lunch counter. I victimized him with a raffle ticket. I mail letters to people I have never met and invite them to become Associates. I know that they already receive some of this type of mail. But I think that my organization is worthy of consideration, especially when I know that Americans gave $114 BILLION in 1989 to charity. Everybody has a button and I look for the fit.

In doing so, even if I send ten letters and get two responses or send a second letter to the same people and get one, I know that the resources of MY organization have been extended. What's more, that person is better informed, more aware about the National Federation of the Blind, and knows that blindness, or diabetes, is not the end of the world. I may not know how they react, but the quarter fed to the toy horse quarter is well spent.

Do you know a blind person?

Marc Maurer, President, National Federation of the Blind, leads the largest group of organized blind citizens in existence. The Federation has more than 50,000 members.

Do you know a blind person who needs help or information? Perhaps he or she is newly-blinded and having trouble adjusting to the loss of sight. Maybe he or she does not know about all the services that are available, such as Social Security benefits, rehabilitation, or library services.

Whoever it is — a newly blinded man or woman, a senior citizen with failing eyesight, a blind child or infant — we (the National Federation of the Blind) would like to try to help.

About 500,000 people in the U.S. are blind, and each year 50,000 more will become blind. Studies have shown that only cancer is feared more than blindness. However, blindness does not need to be the tragedy which it is generally thought to be. With proper training, knowledge, and opportunities blind people can be productive, first-class citizens.

But first the blind individual must know *where and how* to get the training and services he or she needs. We — you and the National Federation of the Blind — can work together to find and provide necessary information to the blind in our communities.

Here are some of the services available to the blind in our communities. For more specific information about any of these services, please contact us.

LIBRARY

Our state, like every state, has free library services for the legally blind. Books and magazines are available (on loan and free of charge) in braille, large print, and on cassette and records. Special cassette machines and record players to use in listening to the taped or recorded reading matter are also loaned without cost to blind library users. For details about where and how to apply for services in your area you may contact us or your local library.

SOCIAL SECURITY BENEFITS

Social Security Disability Insurance (SSDI): Legally blind persons who have paid into the Social Security system may be eligible for SSDI under the special rules which apply to the blind. Legally blind senior citizens considering early retirement should first learn if they might qualify for more benefits under SSDI. *Supplemental Security Income (SSI):* Blind persons who have little or no regular income or savings may qualify for monthly payments under the SSI program. Again, there are special rules which apply only to the blind. Contact your local Social Security office for information and applications. We also encourage blind persons to contact us if they have any problems understanding the regulations, feel they have been unjustly denied benefits, or have other problems about which we may be able to provide information and guidance.

REHABILITATION

EVery state, including this one, has a public rehabilitation or vocational rehabilitation agency which provides training, counseling, and employment placement services to the blind. Sometimes the service is provided directly, and sometimes it is contracted out to private rehabilitation facilities. Some funds through the rehabilitation agency are usually available to students for college education or other post-secondary training. Contact us for information about where to apply for services in your area.

EMPLOYMENT

Blind persons may use the regular public and private employment agencies just like anyone else. However because of widespread misconceptions about the abilities of the blind, special employment services are extremely helpful. Job Opportunities for the Blind (JOB) is a special nationwide job listing and referral service sponsored by the National Federation of the Blind in partnership with the U.S. Department of Labor. JOB uses recorded materials, computers and volunteers to help blind people find competitive employment. There is no charge for this service. To apply for services write to: JOB, 1800 Johnson Street, Baltimore, MD 21230; or call (toll-free) (800) 638-7518.

SCHOLARSHIPS

Blind students can take advantage of the same scholarship programs that are available to sighted students and should be encouraged to do so. However, there are also scholarships which are only available to blind students. The National Federation of the Blind, for example, awards over $50,000 a year in scholarships to worthy blind students. Contact us for further details about these and other special scholarships for the blind.

CIVIL RIGHTS

There are federal and state laws and regulations which protect the civil rights of the blind in such areas as employment, education, housing, insurance, public transportation, and public facilities. If you know of someone who thinks he or she has been unjustly treated or discriminated against just because of blindness, please contact us. We will try to help.

PRODUCTS AND AIDS

Technology has made many useful products available to the blind. Some aids make daily life easier (example, the braille watch) while others have opened up more employment opportunities for the blind (example, taking computers). Contact us for more information about local and national resources regarding products for the blind.

FREE READING MATTER MAIL PRIVILEGE

Recorded, braille, and large print reading matter (including library books and magazines) may be mailed to and from blind persons free of charge if "Free Matter for the Blind" is written or stamped on the envelope or package. Braille watches, white canes, and other special appliances for the blind are included in this privilege. We will be happy to answer questions about the Free Reading Matter mail privilege.

PUBLICATIONS

The *Braille Monitor* is a monthly magazine published by the National Federation of the Blind in braille, in print, in cassette, and on disc. The *Braille Monitor* keeps blind and interested sighted readers informed about issues, news, and events which have special significance to the blind. A free subscription is available by writing to: *Braille Monitor,* National Federation of the Blind, 1800 Johnson Street, Baltimore, MD 21230 (be sure to designate whether the *Monitor* is desired in print, braille, cassette or on disc). For information about local newsletters of special interest to the blind, contact us.

EDUCATION OF BLIND CHILDREN

The passage of Public Law 94-142, the Education of All Handicapped Children Act, established certain rights and protections for blind children and their parents. Blind children are now entitled to a free public education in the "least restrictive environment," and parents have the right to help plan their child's educational program. Contact us for more information about the education of blind children, parent organizations, newsletters, etc. Also, the National Federation of the Blind publishes a magazine for parents of blind children. This publication provides information and insights into all aspects of raising blind children from infancy to adulthood. A free subscription is available to parents or other interested persons by writing to: Future Reflections, National Federation of the Blind, Free Subscription Request, 1800 Johnson Street, Baltimore, MD 21230.

For information or assistance concerning any problem dealing with blindness contact your local chapter or state affiliate of the National Federation of the Blind or: National Federation of the Blind, 1800 Johnson Street, Baltimore, Maryland 21230, (301) 659-9314.

The courtesy rules of blindness

When you meet me don't be ill at ease. It will help both of us if you remember these simple points of courtesy.

1. I'm an ordinary person, just blind. You don't need to raise your voice or address me as if I were a child. Don't ask my spouse what I want — "Cream in the coffee?" — ask me.
2. If I am walking with you, don't grab my arm; let me take yours. I'll keep a half-step behind, to anticipate curbs and steps.
3. I want to know who's in the room with me. Speak when you enter. Introduce me to the others. Include children, and tell if there's a cat or dog. Guide my hand to a chair.
4. The door to a room, cabinet, or to a car left partially open is a hazard to me.
5. At dinner I will not have trouble with ordinary table skills.
6. Don't avoid words like "see." I use them, too. I'm always glad to see you.
7. I don't want pity. But don't talk about the "wonderful compensations" of blindness. My sense of smell, touch or hearing did not improve when I became blind. I rely on them more and, therefore, may get more information through those senses than you do — that's all.
8. If I'm your houseguest, show me the bathroom, closet, dresser, window — the light switch, too. I like to know whether the lights are on.
9. I'll discuss blindness with you if you're curious, but it's an old story to me. I have as many other interests as you do.
10. Don't think of me as just a blind person. I'm just a person who happens to be blind.

In all 50 states, the law required drivers to yield the right of way when they see my extended white cane. Only the blind may carry white canes. You see more blind persons today walking alone. Not because there are more of us, but because we have learned to make our own way.

Class act

by Alisa Stingley

Tom Ley exemplifies professionalism as a math teacher.

From the Editor: At the recent annual convention of the National Federation of the Blind in New Orleans, Louisiana, the yearly conference of our Diabetics Division took place. Janet Williams served two years as our division secretary and did an outstanding job. She decided to step down and not run for the 1991-1992 term.

Tom Ley was nominated and unanimously elected to the position of secretary. He will have a hard time filling the shoes of Janet Williams. However, Tom has excellent credentials.

Following is a story that is enlightening regarding Tom Ley. It appeared on May 27, 1991 in the Times, *Shreveport, Louisiana.*

"Blindness can't stop Thomas Ley from reaching for his vision of being a schoolteacher."

MINDEN — A T-shirted teen-ager in Thomas Ley's algebra class stares at the Xs, Ys, pluses and minuses on the chalkboard and announces dramatically, "I'm *greatly* confused."

Ley, ever the epitome of patience, goes through the math problem one more time. Suddenly the teen's frowning contemplation dissolves into understanding.

"Ohhhhh."

It's nearly the end of the school year at Minden High School and Ley is getting questions that should have been asked weeks, perhaps months, ago. He doesn't seem to mind. The questions are so different from the ones he got back in August.

How do you write on the chalkboard?

How do you grade papers?

They were really asking, how can you be a teacher if you are blind?

"I was very forthright with them," Ley, 24, said last week. "We spent most of the period answering their questions."

Ley doesn't pull any punches — not with students, fellow teachers or anyone else. Fact: He is blind, as a result of diabetes. Fact: He went to college, got a degree, wanted to teach. Fact: He gets his paycheck every month just like the English teacher and the art teacher and the football coach.

Please, he asks, don't make me a hero.

"Because you do something nobody ever thought you could and no one ever allowed you to, all of a sudden it becomes miraculous and incredible and inspirational and awesome," Ley said. "And that's really not the way it is. What I do is not any of those things. It's just average." In class he calls roll using a Braille roster as a student writes down the names for the office. Ley makes his own copy by punching white paper with a Braille stylus.

Lessons are prepared from a cassette version of the textbook. Ley's memory is so precise that he can tell students what page they should be on.

Equations are written on a chalkboard ruled off with masking tape. Ley keeps grades and writes tests on a home computer outfitted with a voice synthesizer. Other teachers oversee test-taking, and a grader — hired at Ley's expense — helps check papers.

"Sight is a great convenience," he said, smiling. "But reading Braille is just as good as reading print."

Ley's good nature — with a hit-and-run sense of humor that will sideswipe anyone who takes him too seriously — belies the mental and physical struggle in his life.

He was diagnosed with diabetes at age 7 but had none of the expected complications — including vision problems — until high school. At 17 he went from 20-20 vision to none at all. He accepted the loss and began classes at Louisiana Tech after learning to use a cane and read Braille.

Ley originally pursued electrical engineering but wanted a more people-oriented career. He excelled academically — 4.0 grade point average despite delays because of his health problems, including a 1989 kidney transplant — but couldn't exorcise his own doubts.

The turning point was training at the Louisiana Center for the Blind in Ruston in 1988 and the National Federation of the Blind.

The Federation offered role models and presented Ley a new doctrine of self-actualization. "If a blind person is given the right training and has the right attitude and philosophy about his blindness, he can live a perfectly normal life, competing on terms of pure equality with his sighted counterpart," said Ley. "We run into a lack of opportunity because people don't think we can do it."

After graduating last May with a bachelor of science degree in education and a minor in physics, Ley sent resumes to Caddo, Bossier and Lincoln parishes but had scarcely a nibble.

Principals seemed wary. Will you need someone in the class all the time? they asked. Will we have to do anything special to accommodate you?

"Those were concerns on their minds," Ley said. "To be frank, that's probably the reason a lot of people didn't hire me to begin with."

Minden Principal Faye Newsom recalled her first Interview with Ley only a few days before school.

"Thomas was well-prepared and had an answer for every question," she said. "But most of all, his attitude about life is always so positive." Some of Ley's colleagues weren't sure what to make of him, though. And perhaps they felt a little guilty.

"We used to have a saying, 'It could be worse, you could be blind,' " said teacher Jan Campbell.

They quickly learned Ley was capable. Janice Greer remembers monitoring a test in Ley's classroom and admonishing a misbehaving student.

"He told me, 'I can handle this,' " she said. "Now, I don't discipline in his classroom."

Ley is now a colleague. One of them. But one who inspires.

"He's full of wisdom," Greer said. "Whenever I get depressed he tells me to look at the ceiling and hold my shoulders up, and I can't get depressed."

In class, Ley is unquestionably in control.

"I hope all you people who are giggling are giggling about algebra," he says, interrupting the lesson.

The room quietens. Ley has an uncanny ability to call on a student who has just nodded off or catch a prankster in the act.

"He can just about tell all the time who it is," said Jason Broughton, 14.

Kids being kids, they've tried to test him.

"If all it took were sight to be able to control a classroom, then all the teachers out there who are seeing would have nice, well-behaved classes," Ley said. "If I can maintain them in their seats, that cuts out 90 percent of the mischief."

Ley flips open the crystal of his watch, notes the time, then signs the pass. The student marvels, remarking, "Right on the line."

The school year has been a lesson for Ley, too. At home in Bossier City he finds class planning eating into time once spent reading science-fiction novels or the occasional Dickensian classic. And he has learned that not every student is an Einstein.

"You can't reach all of them," he said. "But as a teacher, if you set a good example and promote good citizenship and good traits of learning ... you can give them something."

Constitution of the Diabetics Division of the National Federation of the Blind

From the Editor: Since the inception of the ***Voice of The Diabetic*** *in January 1986, the magazine has grown prolifically and now has thousands of new subscribers. As part of the National Federation of the Blind, our Diabetics Division has an official constitution which many members have not seen.*

ARTICLE I — NAME

The name of this organization shall be the Diabetics Division of the National Federation of The Blind.

ARTICLE II — PURPOSE

Section One:

The purpose of this organization shall be to create a climate of opportunity for all diabetics in home, school, and society; to support and educate all diabetics about the ramifications of the disease; to facilitate the sharing of experiences and concerns among diabetics; to develop and expand resources available to all diabetics; to publish a pamphlet for dissemination defining our goals as a diabetic support network.

Section Two:

The Division and its Local Diabetic Support Groups must not merely be social organizations but must formulate programs and actively work to promote the economic and social betterment of the blind diabetic. The Division and its Local Diabetic Support Groups will comply with the provisions of the Constitution of the Federation. Policy decisions of the Federation are binding upon the Division and its Local Diabetic Support Groups, and the Division and its Local Diabetic Support Groups will participate affirmatively in carrying out such policy decisions. The name National Federation of the Blind, or any variant thereof is the property of the National Federation of the Blind; and if the Division or any of its Local Diabetic Support Groups cease to be part of the National Federation of the Blind (for whatever reason), the right to use the name National Federation of the Blind, Federation of the Blind, or any variant thereof shall be forfeited.

ARTICLE III — MEMBERSHIP

The members of this organization shall be diabetics and others interested in promoting the purposes of this organization. The members of this organization are members of the National Federation of the Blind and

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Leaders of the NFB Diabetics Division

Board Members

President, Karen Mayry, 919 Main St., Suite 1S, Box 6, Rapid City, SD 57701; phone: (605) 348-8418.

First Vice President/Editor, Ed Bryant, 811 Cherry St., Suite 309, Columbia, MO 65201; phone: (314) 875-8911.

Second Vice President, Janet Lee, 555 - 119th Ave., NE, Cedar MN 55011; phone: (612) 434-7933.

Treasurer: Bill Parker, Lafayette Tower, 4601 Mayflower Rd., Apt. 2D, Norfolk, VA 23508; office phone: (804) 683-8003; or home phone: (804) 623-1638.

Secretary, Tom Ley, 2514 Oeas Street, Bossier City, LA 71111; phone: (318) 746-0356.

Committees: Chairmen and Chairwomen

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Royanne R. Hollins, Insulin Pump Chairwoman.

Linda Bingham, Pancreas Chairwoman.

Ron Johnson, Heart Disease and Stroke Chairman.

Cheryl McCaslin, Resource Library Chairwoman.

Susan Manchester, Legislative Chairwoman.

Annie Weems, Resources (Aids And Appliances) Chairwoman.

Amputation and Prevention: (co-chaired) Ken Carstens, 603 13th Street N., Virginia, MN 55792; Phone: (218) 741-0312

Allan Nichols, 1514 Oakcourt, Cheyenne, WY 82001; Phone: (307) 632-7221

Fund Raising: Bill Parker

Get Well Committee: Ed Bryant

Heart Disease and Stroke: Ron Johnson, 1229 McKinnley Dr., Ames, IA 50010; Phone: (515) 232-1159

Insulin Pump: Royanne R. Hollins, 3042 La Rue Way, Rancho Cordova, CA 95670; Office phone: (916) 929-9271; Home phone: (916) 368-2230

Legislative: Susan Manchester, 15 Pine Tree Ln., Apt. 1A, Fairfield, CT 06430; Phone: (203) 333-1365

Magazine: Ed Bryant

Pancreas: Linda Bingham, 7146 River Road, Cincinnati, OH 45233; Phone: (513) 941-1193

Renal Failure, Dialysis, Transplantation: Karen Mayry, Ed Bryant

Resource Library: Cheryl McCaslin, 3115 Crestview Apt. 107, Dallas, TX 75235; Phone: (214) 528-8107

Resources (Aids and Appliances): Annie Weems, 24269 Leewin, Detroit, MI 48219; Phone: (313) 592-1567

Sexual Dysfunction-Male Impotence: Bill Parker

Constitution of the Diabetics Division of the National Federation of the Blind

(Continued from page 16)

shall have the same rights, privileges, and responsibilities as other members of the National Federation of the Blind.

ARTICLE IV — OFFICERS AND BOARD OF DIRECTORS

The officers of this organization shall be: President; First Vice President; Second Vice President; Secretary; and Treasurer. The duties of those officers shall be those customarily associated with their respective offices. The officers shall constitute the Board of Directors. The officers shall be elected annually by a majority vote of the members of this organization present and voting at the annual meeting. There shall be no proxy voting.

ARTICLE V — MEETINGS

The Diabetics Division of the National Federation of the Blind shall hold its annual meeting at the time and place of the annual convention of the National Federation of the Blind. The Board of Directors shall conduct the business of the organization between annual meetings.

ARTICLE VI — LOCAL DIABETIC SUPPORT GROUPS

Under procedures to be established by the Board of Directors of the Diabetics Division of the National Federation of the Blind, Local Diabetic Support Groups may be established. Activities of Local Diabetic Support Groups will be consistent with the policies and activities of the National Federation of the Blind and of the particular state affiliate and local chapters in their vicinity.

ARTICLE VII — DUES

The dues for members of the Diabetics Division of the National Federation of the Blind shall be five dollars per year, payable in advance.

ARTICLE VIII — FUNDS AND FINANCING

Funds collected by or in the name of this organization shall be sent to the Treasurer of the National Federation of the Blind. Expenses shall be as authorized by, and paid under the procedures established by the National Federation of the Blind.

ARTICLE IX — AMENDMENTS

This constitution may be amended by a two-thirds vote of the members present and voting at any meeting of the Diabetics Division of the National Federation of the Blind; but the amendments shall not become effective until approved by the board of Directors of the National Federation of the Blind.

What you always wanted to know but didn't know where to ask

(Resource list)

(Inclusion of materials in this publication is for information only and does not imply endorsement by the Diabetics Division of the NFB.)

New Resource List

The Diabetics Division of the NFB has an updated resource list of aids and appliances for blind diabetics and those losing vision. This list is comprehensive and is arranged under four general headings: General and Miscellaneous, Automatic Insulin Injection Systems, Blood Glucose Monitoring Systems, and Large Distributors of Diabetes Equipment/Supplies.

Sometimes blind diabetics do not realize that they can continue being independent by accurately drawing up insulin and testing blood glucose levels. Limitations are usually self-imposed and often all that is needed to overcome negative thinking is simply knowing where to go for information.

The new resource list costs $1.00 per copy and is available in Braille, print, and cassette. Make donations payable to National Federation of the Blind and order from: Annie Weems, Aids and Appliances Chairwoman, 24269 Leewin, Detroit, MI 48219; phone: (313) 592-1567.

Equipment

Diascan-SVM Glucose Meter with Audio Output: Blood can be smeared on the test-strip pad and still produce an accurate clinical reading. The manufacturer offers a $125 rebate. Suggested retail price is $635. With rebate (including cassette instructions) it is $510. A sample cassette is offered free upon request. Contact: Home Diagnostics, Inc., 51 James Way, Eatontown, NJ 07724; telephone toll-free: 1-800-342-7226; or call: 1-908-542-7788.

Accu-Chek II Freedom Glucose Meter with Audio Output: Has a finger guide which assists in getting a drop of blood onto the test strip pad. Once a drop of blood is on the pad, the machine says, "Start the timer." The user receives audio cues throughout self-testing. Dimensions: approximately 12" x 12" x 7", weight about 11½ lbs.; includes cassette instructions. Suggested retail price: $650-$700. Contact: Boehringer Mannheim Diagnostics, Inc., 9115 Hague Road, Indianapolis, IN 46250; telephone toll-free: 1-800-428-5074.

TeleSensory, 455 N. Bernardo Ave., Mountain View, CA 94043; telephone toll-free: 1-800-227-8418, or locally at (415) 960-0920.

This company carries a comprehensive line of computer products for the blind/visually impaired. For example, a reading system that "scans and converts print documents to be read, modified, or saved on an IBM AT, PS/2 Micro Channel or compatible computer." They also "offer a wide range of products that work with Apple computers to provide large print, speech, Braille, or tactile output."

Aicom Accent Text-To-Speech Synthesizer: Converts text on your computer screen to speech, with vocabulary of over 20,000 words. Six models: full-length ($745) or half-length ($545) PC plug-in cards for IBM PC-compatibles; cards for Toshiba laptops T1200, T1600 or T1000SE (all $625); plug-in card for Microchannel PS/2 ($895) or stand alone unit with RS-232C link to any computer ($995); plug-in card for Toshiba T1200XE, T2000SX Laptop plug-in card ($675). Supported by all major screen reader programs. Contact: Aicom Corp., 1590 Oakland Road, Suite B112, San Jose, CA 95131; tel: (408) 453-8251; fax: (408) 453-8255.

Cassette Review
by Ed Bryant

This article appeared in vol. 6, #2, spring edition 1991, but unfortunately, the wrong ZIP code was printed. *How to Survive the Ups and Downs of Diabetes*, by Denise J. Bradley, is a cassette recording I recommend. Denise describes her life as an insulin-dependent diabetic. She discusses all aspects of diabetes, explaining what it is and how she keeps it under control. Her story is encouraging and uplifting.

Following is an excerpt from the two-volume set. "The reason my story has meaning for you is that I was able to turn my life and health around. I went from spending an average of $4,000.00 a year for medical expenses to my present cost of only $1,200.00. What I'm going to do on this tape is tell you how I did it, by welcoming you to the wonderful world of controlled diabetes. What's in it for you: health, independence, and control over your own life."

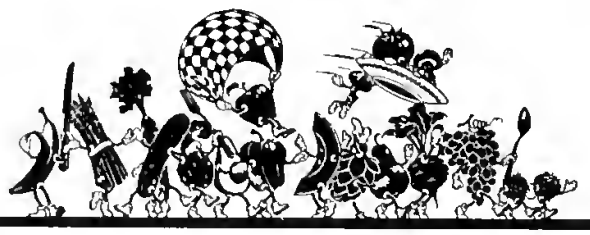
Cost: $12.95 plus $3.00 mailing. Order from: Upbeat Publications, 1104 Arizona, S.E. #15, Albuquerque, NM 87108; or order from Western Publishing Consortium, phone toll-free: 1-800-873-2363.

Literature

All New Cookbook For Diabetics and Their Families: This book contains more than 200 recipes and the New Approved Exchange List. All recipes were prepared by Registered Dietitians at the University of Alabama Hospitals and School of Medicine.

This cookbook offers recipes formatted in large print, a nutrition guide for diabetics, exchanges for fast foods so you will know how to eat healthy when you eat out, charts for sugar substitutes and equivalents, and a section to help diabetics understand how to eat on "sick days."

This book costs $12.95 plus $2.99 shipping. If prepaid, there is no shipping charge. Make checks payable to and order from: Oxmoor House, P.O. Box 832463, Birmingham, AL 35201; telephone: (205) 877-6000.



Food For Thought

How Do You Like Them Apples?

Where you carry your weight may be as important, in terms of your health, as how much weight you carry, according to Beaumont Hospital obesity experts.

"Apple-shaped" people, those who carry their weight around their waists, are at higher risk for heart disease, high blood pressure, diabetes, gallbladder disease, gout, stroke, and cancer. They die at two to three times the rate of "pear-shaped" people their age, whose weight settles around their hips and buttocks.

Turning an "apple" into a "pear" isn't a fruitless task. The Beaumont Clinics of Preventive and Nutritional Medicine are investigating a drug to help "apple-shaped" people pare down.

(Note: This article appeared March 27, 1991 in *Speaking of Health,* published by William Beaumont Hospital, Royal Oak, Michigan.)

Blindness Defined

Defined in absolute terms, blindness is "the absence of vision." However, this definition excludes those who are functionally blind — those who have limited visual stimulation but little or no useful vision.

Therefore, a broader definition of blindness has been written by the National Center for Health Statistics. According to the Center, to be blind is to be "unable to read ordinary newspaper print, even with glasses." Legal blindness usually is defined as "visual acuity of less than 6/60 or 20/200 using Snellen's test types or visual field restriction to 20 degrees or less," according to *Stedman's Medical Dictionary.*

Large Print, Cassettes, and Tape Players

Some subscribers have ordered the ***Voice*** in large print format. We do not produce our magazine in extra large print for the legally blind simply because the cost would be prohibitive. If the print is extra large, the cost of production would skyrocket by several thousand dollars.

Legally blind subscribers having trouble reading the print can receive the ***Voice*** on audio cassette at no extra charge. These tapes are recorded at 15/16 inches per second (ips), which is slower than the standard speed of 1⅞ ips. If the ***Voice*** tape is played in a standard recorder, it will sound as if it is going too fast, like a chipmunk.

Anyone who is legally blind may receive, at no charge, a special tape player that can be used for ***Voice*** tapes as well as other materials. To repeat: any blind person may receive a tape player at no cost.

Tape players may be ordered from Regional Libraries for the Blind and Physically Handicapped; or contact the Library of Congress for the Blind; phone toll free: 1-800-424-8567. These tape players are mailed as Free Matter for the Blind.

Q: Why are pigs always ready for accidents?
A: They have spare ribs.

Q: What did the porcupine say to the cactus?
A: Is that you, Mother?

Membership Benefits
by Ed Bryant

During the past few years, our Diabetics Division has grown tremen-

dously. For example, the ***Voice of the Diabetic,*** our quarterly magazine, has risen from a circulation of about 600 in 1986 to the current national distribution of more than 42,000!

Despite our "population boom," I am told there are ***Voice*** subscribers who don't realize they have the option of membership in our Diabetics Division. For those who might not have heard, or for whom the benefits of membership are unclear, I have outlined some of the key membership features for you.

The National Federation of the Blind Diabetics Division is an organization that emphasizes people and highly values your involvement. We offer a yearly membership to individuals for only $5.00, which includes a free subscription to the ***Voice of the Diabetic.*** The non-member and institutional rate is $15.00.

Members automatically have access to committees that are ready to help those with concerns about any aspect of diabetes. This benefit is free of charge. These committees cover such varied topics as blindness/visual dysfunction, amputation and prevention, heart disease and stroke, insulin pump, legislative issues, pancreas transplantation, renal failure-dialysis and kidney transplantation, resource library, sexual dysfunction/male impotence, and resources-aids/appliances.

The support and information provided by our committees is valuable, and perhaps just as important is the sense of family our members share. Should concerns about diabetes arise, members can be put in touch with others having similar experiences. This is a unique benefit that is only available to members.

Indeed, members of our support and information network receive many benefits that are worth the $5.00 yearly membership dues. To change from non-member status to membership status in the Diabetics Division of the National Federation of the Blind, you need only to contact: Ed Bryant, Editor, Voice of the Diabetic, 811 Cherry St., Suite 309, Columbia, MO 65201; phone: (314) 875-8911.

Guide Dog Users

Guide dog users and potential users are invited to join the National Federation of the Blind Guide Dog Division. Division members will receive a subscription to ***Harness Up,*** the Division's newsletter. To join, send check or money order for $5.00 payable to National Federation of the Blind to Pricilla Ferris, 56 N. Main St., Room 202, Fall River, MA 02720. Articles for the newsletter may be sent to the editor, Bill Isaacs, P.O. Box 332, Bourbonnais, IL 60914; phone: 815-939-1839.

Articles Needed

If you are a health professional, a person with diabetes, or a family member or friend of a diabetic, we invite you to submit an article for publication in the ***Voice of the Diabetic.***

If you have diabetes, have you experienced a diabetic complication? If so, your story could be inspiring and enlightening for thousands of men and women who may be facing the same side effect(s).

One of the goals of the Diabetics Division of the National Federation of the Blind is to show people that they have options regardless of diabetic complications. Are you blind or losing vision? Have you had a kidney transplant? Do you have nerve damage? Have you had an amputation? None of these problems has to be overwhelming. It is helpful to know that others have been down the same road.

If you have doubts about your writing ability, please do not worry. If major changes are needed, you will be contacted before the story is used in the ***Voice.***

All submissions to the ***Voice*** must be upbeat, because our philosophy regarding diabetes is positive. For information and article submission guidelines, contact: Ed Bryant, Editor, ***Voice of the Diabetic,*** 811 Cherry St., Suite 309, Columbia, MO 65201; telephone (314) 875-8911.

Subscription/Donation/Membership Form

Voice of the Diabetic is a quarterly magazine for anyone interested in diabetes, especially diabetics who are blind or losing vision. The $5.00 annual membership fee of the Diabetics Division of the National Federation of the Blind (NFB) entitles you to a free subscription to **Voice of the Diabetic**. However, production cost per annual subscription of the **Voice** is about $15.00, and for this reason we must charge all non-members and institutions $15.00 for an annual subscription. Of course, all donations are accepted and very much appreciated.

You may receive the *Voice* as a member or non-member. ***Please check one:***

☐ I would like to become a member of the Diabetics Division of the NFB and receive a free subscription to *Voice of the Diabetic:* ($5.00/year)

☐ I would like to subscribe to *Voice of the Diabetic* as a non-member, or as an institution: ($15.00/one year; $28.00/two years; $40.00/three years)

The *Voice* is available in print or on half-speed (15/16 ips) cassette tape; cassettes are provided at no extra cost. ***Please check one box.*** I would like to receive *Voice of the Diabetic:*

☐ in print ☐ on cassette tape ☐ both in print and on cassette tape

Optionally, check this box:

☐ I would like to make (or add) a tax-deductible contribution of $_____ to the Diabetics Division of the NFB.

Please print clearly

Name _____

Address _____

City _____ State _____ Zip _____

Telephone Number (_____) _____

Send this form or a facsimile along with your check to our editor:

Ed Bryant, 811 Cherry St., Suite 306, Columbia, MO 65201

Please make all checks payable to the **NATIONAL FEDERATION OF THE BLIND.**

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Accent-PC	Full length PC plug-in card, on-board processor, no speed limit from PC ($745)	Accent-1600	Toshiba T1600 and T1200 Laptop plug-in card ($625)
Accent-MC	Microchannel PS/2 plug-in card ($895)	Accent-XE	Toshiba T1000LE/XE/SE Laptop plug-in card ($625)
Accent-SA	Stand alone, battery operable unit, RS-232C link to any computer ($995)	Accent-SX	Toshiba T1200XE, T2000/SX/SXe Laptop plug-in card ($675)
Accent-mini	Half length PC plug-in card, runs on PC's CPU/Memory ($545)	Accent-L40	IBM PS/2 L40SX Laptop plug-in card ($675)

DEALERS WITH SCREEN-REVIEW PROGRAMS SUPPORTING ACCENT PRODUCTS

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Interface Sys.	FREEDOM-1/ISOS	(503) 665-0965	IBM	SCREEN-READER	(800) IBM-2133
Omnichron	FLIPPER	(415) 540-6455	MicroTalk	ASAP	(502) 897-2705
TeleSensory	SOFTVERT	(800) 227-8418			

OTHER U.S. DEALERS

Access Technologies, Inc.	(205) 880-8717	CCAI	(303) 699-1801	LCI Systems	(800) 228-7798
Adapted Computer Tech.	(714) 539-2082	Centrum Business Sys.	(303) 939-8888	LS and S	(800) 468-4789
Adaptive Tech. Serv.	(817) 548-9973	Circuit Rider	(406) 252-1232	NJR Speech Systems	(314) 921-9330
Advantage Software	(503) 667-5662	Computer Resources	(704) 456-5899	Office Systems	(312) 276-8889
Arts Computer Prod.	(800) 343-0095	EVAS	(800) 872-3827	PC Place	(916) 481-1777
ATR Computer Tech.	(800) 421-9775	Handisoft	(215) 898-4933	RL and Associates	(415) 512-1180
Automagic	(213) 552-1412	IRTI	(415) 961-3161	Universal Low Vision	(614) 486-0098

CANADIAN DEALERS

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Betacom Systems	(514) 636-9267	Intelligent Access	(519) 679-4828	Sudata	(416) 696-9590

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